

REMARKS

Upon entry of this Amendment, claims 1-37 are pending for consideration by the Examiner. The Examiner's indication that claims 6, 9, 14, 19, and 25-27 contain allowable subject matter is gratefully acknowledged.

The Examiner has rejected claims 1-5, 7, 8, 10-13, 15-18, 20-24, and 28-37 under 35 U.S.C. 102(e) as being anticipated by Fredriksson, et al. (US 6,412,466). Specifically, the Examiner states that "The patent by Fredriksson, et al. (US 6,412,466) shows an intake manifold (15) with an intake passageway (4, 5, 6, 7, 8). A fuel injector (9) is in communication with the intake passageway. At least a portion of the fuel injector is molded into the intake manifold."

The Applicants respectfully disagree with the Examiner's argument that Fredriksson, et al. teaches that at least a portion of the fuel injector is molded into the intake manifold. Fredriksson, et al. includes no teaching or suggestion that the injectors 9 are molded into the intake manifold 15. To the contrary, Fig. 4 of Fredriksson, et al. illustrates that the injectors 9 are clearly not molded into the intake manifold at all. As seen in Fig. 4, and as described at col. 3, lines 24-34, an extension part 21 is placed into the fuel hole 18 and the inlet end of the injector is inserted into the extension part 21. A sealing ring 23 is positioned between the extension part 21 and the injector 9 to prevent leakage. Another sealing ring 24 is positioned between the extension part 21 and the fuel hole 18 to prevent leakage. There is clearly no portion of the fuel injector 9 that is molded into the intake manifold.

For all of these reasons, claims 1-31 are allowable over Fredriksson, et al.

Dependent claims 2-14 depend from claim 1 and are allowable for the reasons discussed above and for other reasons. For example, dependent claim 3 recites, among other things, that the fuel injector is entirely molded into the intake manifold. This feature is not taught or suggested in Fredriksson, et al.

Dependent claim 4 recites, among other things, that a fuel rail defines the fuel passageway and at least a portion of the fuel rail is molded into the intake manifold. Fredriksson, et al. does not teach or suggest a separate fuel rail molded into the intake manifold, but rather discloses only an integrally formed “fuel channel 19.”

Dependent claim 5 depends from claim 4 and is allowable for the reasons set forth above with respect to claim 4. Additionally, claim 5 recites that an interface between the fuel rail and the fuel inlet of the fuel injector is molded into the intake manifold. This is not taught or suggested in Fredriksson, et al.

Dependent claim 7 depends from claim 4 and is allowable for the reasons set forth above with respect to claim 4. Additionally, claim 7 recites that the fuel rail includes a fuel rail inlet extending from the intake manifold. This is not taught or suggested in Fredriksson, et al.

Dependent claim 11 recites, among other things, that the fuel injector is at least partially molded into the middle shell of the intake manifold. As Fredriksson, et al. does not teach or suggest the molding of a fuel injector into any portion of the intake manifold, it certainly does not teach or suggest at least partially molding the fuel injector into a middle shell of an intake manifold.

Dependent claim 12 recites, among other things, that the electrical connector is at least partially molded into the intake manifold. As will be discussed below with respect to claim 32, Fredriksson, et al. includes no teaching or suggestion of molding the electrical connector into the intake manifold.

Dependent claim 13 recites, among other things, that a fuel outlet of the injector is molded into the intake manifold. This feature is not taught or suggested by Fredriksson, et al.

Dependent claims 17, 21, 22, 28, and 29 depend from claim 15 and contain similar features to those already discussed above, and are allowable for the same reasons.

Additionally, dependent claim 20 recites, among other things, that the fuel injector is coupled to the fuel rail by one of laser welding, TIG welding, and brazing. This feature is not taught or suggested by Fredriksson, et al.

Independent claim 30 recites, among other things, a fuel rail assembly including a fuel injector and a fuel rail. The fuel injector has a fuel inlet and a fuel outlet, and an interface between the fuel passageway in the fuel rail and the fuel inlet is molded into the intake manifold. The fuel outlet is also molded into the intake manifold. Additionally an electrical connector is at least partially molded into the intake manifold. These features are not taught or suggested by Fredriksson, et al.

Dependent claim 31 depends from claim 30 and recites a second fuel rail assembly at least partially molded into the intake manifold. This feature is also not taught or suggested by Fredriksson, et al.

As for independent claim 32, there is no teaching or suggestion in Fredriksson, et al. that the electrical path is at least partially molded into the intake manifold. The injector 9 includes a typical electrical connection 10, but there is no additional discussion regarding the electrical path. There is certainly no teaching or suggestion of any portion of the electrical path molded into the intake manifold.

For all of these reasons, claims 32-37 are allowable over Fredriksson, et al.

Dependent claims 33, 35, and 37 depend from claim 32, further define the fuel path and the electrical path, and recite features that are allowable for reasons already discussed above.

For all of these reasons, claims 1-37 are allowable over Fredriksson, et al.

Reconsideration of the rejections and allowance of claims 1-37 are respectfully requested.

The undersigned is available for telephone consultation at any time.

Respectfully submitted,

A handwritten signature in black ink, reading "Richard L. Kaiser". The signature is written in a cursive style with a large, stylized 'R' and 'K'.

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